Native Mouse MMP2

Cat. No. MMP2-8455M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	LPA was purified from Mouse Fibroblast.
Species	Mouse
Source	Mouse Fibroblast
Description	The progelatinase A, a member of the matrix metalloproteinase (MMP) family, has been isolated from macrophages and fibroblasts. Gelatinase A hydrolyses several components of the extracellular matrix, e.g. the collagen types IV, V and XI and gelatin. Progelatinase A complexed via their C-terminal domain with TIMP-2 was isolated from culture media of different cell types. This complex shows both properties of its constituents: Like TIMP-2 it inhibits active matrix metalloproteinases and like gelatinase it shows proteolytic activity after activation with APMA (4-aminophenylmercury acetate). However, its proteolytic activity is less than 10% of that of gelatinase A not complexed with TIMP-2. In contrast to the other MMPs the progelatinase A cannot be activated by the serine proteinase trypsin. Until quite recently a potential natural activator that can transform latent progelatinase A into the active form was unknown. It was shown that the catalytic domain of the membrane type 2-matrix metalloproteinase activates progelatinase A as well as the progelatinase A / TIMP-2 complex, by cleaving the 72 kDa progelatinase A to yield 67 kDa gelatinase A, which is than transformed into 62 kDa gelatinase A. The 62 kDa form is about twice as active as the 67 kDa form towards the Dnp-pepitde (Masui et al.). No significant difference in activity was found between free and complexed gelatinase A forms

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Form	In 50 mM Tris-HCl, pH 7; 200 mM NaCl; 5 mM CaCl2; 1 μM ZnCl2; 0.05% Brij 35; 0,05% NaN3
Molecular Mass	40/42 kDa
Purity	≥0% by SDS - PAGE
Storage	Lyophilized hUK is best stored desiccated below 8°C. Reconstituted hUK can be stored at 4°C for 2-7 days. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid freeze-thaw cycles.
Shipping	Dry Ice

GENE INFORMATION

Gene Name	Mmp2 matrix metallopeptidase 2 [Mus musculus]
Official Symbol	MMP2
Synonyms	MMP2; matrix metallopeptidase 2; 72 kDa type IV collagenase; gelatinase A; 72kD gelatinase; 72kDa gelatinase; 72 kDa gelatinase; 72kD type IV collagenase; 72kDa type IV collagenase; matrix metalloproteinase 2; matrix metalloproteinase-2; GelA; Clg4a; MMP-
Gene ID	17390
mRNA Refseq	NM_008610
Protein Refseq	NP_032636
Pathway	Bladder cancer, organism-specific biosystem; Bladder cancer, conserved biosystem;

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	Diabetes pathways, organism-specific biosystem; Disease, organism-specific biosystem; GnRH signaling pathway, organism-specific biosystem; GnRH signaling pathway, conserved biosystem; IL-3 Signaling Pathway, organism-specific biosystem;
Function	fibronectin binding; hydrolase activity; metal ion binding; metalloendopeptidase activity; metallopeptidase activity; peptidase activity; zinc ion binding;

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